

Claims

1. Glass structure for statically or dynamically loaded structures comprising at least one laminated glass pane (2) and at least one clamping element (4) by which the laminated glass pane (2) can be fastened to a supporting structure (6),

characterized in that

the laminated glass pane (2) comprises a statically and dynamically loadable supporting glass pane (8) and at least one cover glass pane (12) connected with the supporting glass pane (8) through a layer of cast resin (10), the cover glass pane being provided with electrically conductive transparent conductor paths (14), the clamping force for fastening the laminated glass pane (2) being exerted by the at least one clamping element (4) only on the supporting glass pane (8) of the laminated glass pane (2).

2. Glass structure of claim 1, wherein the supporting glass pane (8) is a hardened single glass pane.
3. Glass structure of claim 1, wherein the supporting glass pane (8) is a composite glass laminate in PVB foil with a plurality of hardened or non-hardened single panes (8a, 8b).
4. Glass structure of one of claims 1 to 3, wherein the cover glass pane (12) comprises current loads (16) connected to the electrically conductive transparent conductor paths (14).
5. Glass structure of one of claims 1 to 4, wherein the at least one clamping element (4) has a flange portion (18) engaging behind the supporting glass pane (8).

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6. Fastening element of one of claims 1 to 5, wherein each clamping element (4) is passed through a recess (9) in the supporting glass pane (8).
7. Glass structure of claim 6, wherein the at least one clamping element (4) is integrated in the laminated glass pane (2), the cover glass pane (12) covering the entire surface of the laminated glass pane (2).
8. Glass structure of claims 1 to 5, wherein the clamping element (4) holds the supporting glass pane (8) in an edge portion in which the cover glass pane (12) recedes from the supporting glass pane (8).
9. Glass structure of one of claims 1 to 5, wherein only the cover glass pane (12) is recessed in the edge portion of the laminated glass pane (2) in the area of the clamping elements (4).
10. Glass structure of claim 6, wherein the cover glass pane (12) has a larger recess (11) relative to the recess (9) and the clamping elements (4) adapted to be inserted through both recesses (9, 11) hold the supporting glass pane (8).
11. Glass structure of claim 10, wherein the clamping elements (4) terminate flush with the cover pane (12).
12. Glass structure of claim 10 or 11, wherein the gap between the clamping element (4) and the cover glass pane (12) is sealed with plastic material.
13. Glass structure of one of claims 4 to 13, wherein the current load (16) is a plurality of light emitting diodes emitting light to one or both sides.
14. Glass structure of one of claims 1 to 14, wherein the at least one clamping element (4) comprises current connection elements (20) for current

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supply to the electrically conductive conductor paths (14) of the cover glass pane (12).

15. Glass structure of claim 15, wherein the current connection elements (20) protrude from the portion of the clamping element (4) facing the cover glass pane (12).
16. Glass structure of one of claims 1 to 16, wherein the clamping element (4) comprises a plurality of mutually insulated segments supplying a plurality of current connection elements (20) with current or control signals.
17. Glass structure of one of claims 1 to 17, wherein the clamping element (4) comprises a screw thread for fastening to the supporting structure (6).
18. Glass structure of one of claims 6 to 18, wherein the at least one recess (9) in the supporting glass pane (8) comprises a bevelled portion (26) adapted to a conical portion (28) of the clamping element (4).

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